



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/477,985	01/05/2000	PALLAB MIDYA	SC10874TC	1033

7590

01/20/2004

HARRY A WOLIN
MOTOROLA INC
AUSTIN INTELLECTUAL PROPERTY LAW SECTION
7700 WEST PARMER LANE MD TX32 PL02
AUSTIN, TX 78729

EXAMINER

NGUYEN, MINH T

ART UNIT

PAPER NUMBER

2816

DATE MAILED: 01/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/477,985	Applicant(s) MIDYA ET AL.	
	Examiner Minh Nguyen	Art Unit 2816	<i>ML</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 16-20 and 25-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-8, 16-18, 20 and 25-29 is/are rejected.
- 7) ☒ Claim(s) 4 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>63003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's amendment filed on 11/10/03 has been received and entered in the case. Claims 1-8, 16-20 and 25-29 are pending. The amendment presented therein overcome some of the objections, and therefore, these are withdrawn. The prior art rejections are maintained and repeated for the reasons set forth below. This action is FINAL.

Specification

2. The disclosure is objected to because of the following informalities: the summary of invention and its header are missing. See MPEP 1302.01, especially form paragraph 13.07, i.e., "Applicant is required to ...".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-7, 16-18, 20, 25-29 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. Re. 33,333, issued to Taylor.

As per claim 1, Taylor discloses a switching circuit (Fig. 5), comprising:

Art Unit: 2816

at least two switches (80 and 81) between an upper voltage (+75V) and lower voltage (-75V) and a passive break-before-make (BBM) element (inductor 83 and the resistor in parallel with it, inductor 83 and resistor are clearly passive components) in series with the at least two switches (as shown) and the switching circuit connected to a load (see Fig. 6, the load is connected to the OUTPUT 113).

As per claim 2, see Fig. 1 and 6, explanation is given in column 3, lines 12-16.

As per claim 3, inductive element reads on inductor 83 and resistive element reads on the resistor in parallel with the inductor 83.

As per claim 5, as shown in Fig. 6, the lowpass filter includes inductors and capacitors.

As per claim 6, see column 5, lines 45-46, i.e., "push-pull high current power amplifier".

As per claim 7, switches 80 and 81 are transistors.

As per claim 16, same rejections as noted in claim 1, the preamble is seen in the title which is clearly an audio amplifier circuit and modulator 7 is seen as a digital circuit (column 2, lines 63-64).

As per claim 17, inherently met since Taylor circuit is an audio amplifier system.

As per claims 18 and 20, same as claims 3 and 6, respectively.

As per claims 25, this claim is merely a method to operate the switching circuit of claim 1, since Taylor teaches the circuit, he inherently teaches the recited method.

As per claim 26-27, the recited storing step is performed by the inductor 83.

As per claims 28-29, the recited dissipating step is performed by the resistor connected in parallel with inductor 83.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. Re. 33,333, issued to Taylor.

Taylor discloses a switching circuit as discussed in claim 1 but does not explicitly disclose the switching circuit is internal to an integrated circuit chip as called for in the claim.

The Examiner takes Official Notice the fact that packing an audio amplifier circuit in an integrated chip is a well-known and popular practice nowadays.

It would have been obvious to one skilled in the art at the time of the invention was made to pack the Taylor's audio amplifier circuit in an integrated chip for the well-known advantage which is to improve the reliability of the Taylor's audio amplifier circuit.

Response to Arguments

5. Applicant's arguments filed on 11/10/03 have been fully considered but they are not persuasive.

Regarding the argument that MPEP 608.01(d) does not require the inclusion of the Brief Summary of the Invention.

The examiner notes that the objection is not based on the MPEP 608.01(d) section as argued by the applicant. As clearly noted in the preceding objection, the objection specifically

Art Unit: 2816

point out the MPEP 1302.01 section which requires the inclusion of the Summary of Invention section. Especially form paragraph 13.07, i.e., "Applicant is required to ...".

Regarding the argument that claims 1, 16 and 25 are not simply claiming an inductor in parallel with a resistor but are claiming a passive BBM element.

The examiner notes that Fig. 3 of the present invention shows that element 54 having a resistor in parallel with an inductor constitute the BBM element. Further, in the specification of the present invention, page 7, lines 20-21, clearly indicates that a resistor and an inductor in parallel constitute an BBM element.

Regarding the argument that not all inductors in parallel with a resistor within a circuit operate as passive BBM elements, i.e., the values chosen for the inductors and resistors as well as surrounding circuitry may further define how the inductors and resistors actually work within a circuit. The argument further indicates that the BBM elements are designed to have a relatively high impedance during short terms and low impedance during long tems.

The examiner notes that inductors have known for having the "relatively high impedance during short terms and low impedance during long tems" characteristics. The examiner further notes that the argument makes it appears that the values of inductors and resistors are essential inventive features, therefore, the claim appears to have 112, first paragraph problems for failing to include essential features in the claims.

Allowable Subject Matter

6. Claims 4 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 4 and 19 are allowable because the prior art of record fails to teach or suggest a switching circuit which includes a passive MBB having the structure recited in these claims.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Nguyen whose telephone number is 703-306-9179. The examiner can normally be reached on Monday, Tuesday, Thursday, Friday 7:00-5:30.

Art Unit: 2816

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 703-308-4876. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9318.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

 1/15/04

Minh Nguyen
Primary Examiner
Art Unit 2816